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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,833	04/12/2001	James K. Walker	NAN-105XC1	5073

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EXAMINER

VARGOT, MATHIEU D

ART UNIT PAPER NUMBER

1732

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/833,833

Applicant(s)

WALKER ET AL.

Examiner

Mathieu D. Vargot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 and 39-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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1.Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 40, line 1, "during" should be instead –duration—to agree with the language of claim 39.

2.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 9, 10, 24-30 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blyler, Jr et al –018, either alone, or further in view of Blyler, Jr et al –808 essentially for reasons of record noting the following. Applicant has amended claim 1 to recite that the heating comprises passing the polymeric tube surrounded by the outer tubing continuously through a heated enclosure. Extrusion machine 401 of Figure 4 of the primary reference is disclosed to be that shown in Figs. 1A and 1B of Blyler –808, which includes a heated diffusion section 22 through which the fiber passes continuously and the additive is diffused. While it is true that Blyler –018 subsequently further heats the wound composite tube, it is submitted that the combination as applied does in fact meet the claims. It is also maintained that making the entire heating process as continuous would have been within the skill level of the art. Although applicant has argued against this, there is no evidence of record to indicate any non-obviousness for performing the operation in a continuous manner. The drum heating of

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instant claim 41 is admittedly known in the art by applicant (see page 15, line 22 of the instant specification) and such would have been an obvious feature in the process of the primary reference dependent on the duration of heating desired for the composite tube.

3. Claims 2, 4-8 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blyler, Jr et al -018 in view of Koike et al -621, either alone, or further in view of Blyler, Jr et al -808 as set forth in paragraph 2 of the last office action.

4. Applicant's arguments filed January 18, 2005 have been considered but they are not persuasive. While the primary reference does perform additional heating of the reeled composite, there clearly would be some amount of continuous heating provided by the diffusion zone 22 of Fig. 1A,B of Blyler -808, which Blyler -018 indicates is used as extruder 401 of Fig. 4 therein. Further heating in Blyler -018 would of course occur in oven 403, where the reeled composite tube is also heated to complete the diffusion. It would appear that Blyler -018 is using a rather complex process to ensure that the optical fiber has the desired gradient. However, one of ordinary skill in the art would have been able to readily determine the diffusion conditions (ie, temperature and duration of heating) that would bring about the desired diffusion and simply convert the batch processing to a fully continuous one. The motivation for this is simple economics, a continuous process requiring less intervention and having a shorter cycle time. Any combination of the Blyler et al references is in fact suggested by the primary reference, not the examiner. Note that Blyler, Jr et al -018—the primary reference-- specifically refers to Blyler, Jr et al -808 by referencing the application number of the latter, as

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applicant has already noted. Applicant has noted that the instant method is "unique and advantageous" (page 11, middle of the page) and apparently this is due to the continuous nature of the processing. However, as already pointed out, such is submitted as being within the skill level of the art. In fact, Blyler -018 performs a more complicated batch process akin to a laboratory procedure. Actual manufacturing of the composite fiber would have been done in a continuous fashion.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakamura discloses a continuous process for making graded optical fibers.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
February 4, 2005


Mathieu D. Vargot
Primary Examiner
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2/4/05